

Remarks

Claims 12-22 and 24-29 are now pending in this application. Applicants have amended claims 12, 26 and 28 and presented new claim 29 to clarify the present invention. Applicants respectfully request favorable reconsideration of this application.

Applicants argued the date of the web site references utilized by the Examiner because to make a valid rejection, a reference needs to have a valid date. None of the web site references had a valid date with respect to the priority date of the present application. Also, as pointed out by Applicants, these references did not disclose or suggest a bowling lane or bowling lane construction element according to the present invention.

The rejection of claim 12 under 35 U.S.C. § 112, second paragraph is no longer relevant since the language identified by the Examiner is no longer present in the claim. Accordingly, Applicants respectfully request withdrawal of the rejection.

The Examiner rejects claims 12-17, 19-22 and 24-28 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 4,557,961 to Gorges. The Examiner rejects claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Gorges in view of U.S. patent 4,337,290 to Kelly. The Examiner rejects claims 17-22 and 26-28 under 35 U.S.C. § 103(a) as being unpatentable over Brunst in view of Kelly. The Examiner rejects claims 12-14 under 35 U.S.C. § 103(a) as being unpatentable over Brunst in view of Kelly and further in view of U.S. reissue patent 35,778 to Stirling, newly cited Materials Science and Engineering and U.S. patent 5,106,668 to Turner.

The Examiner rejects claims 15 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Brunst in view of Kelly, Stirling, Materials Science and Gorges.

Gorges does not disclose the present invention as recited in claims 26 and 28 since, among other things, Gorges does not disclose a bowling surface that includes an impact resistant laminate layer. Rather, Gorges discloses a fire retardant coating 20 that includes a copolymer of vinylidene fluoride and hexafluoropropene. Gorges does not disclose that the coating is a laminate. Along these lines, it is well established, such as by Merriam-Webster Online Dictionary, that a laminate is "a product made by laminating" and "laminating" means "to make (as a windshield) by uniting superposed layers of one or more materials". On the other hand, Merriam-Webster Online Dictionary defines a coating as "a layer of one substance covering another".

Furthermore, Gorges does not disclose that the fire retardant coating is a bowling surface or is impact resistant. Claim 28 recites that the laminate layer is a bowling surface. Contrary to the Examiner's assertions, this is a real limitation. Applicants have previously established the standards for a bowling lane. Any surface would not be suitable for a bowling lane nor is any surface impact resistant in the context of a bowling lane, which is what claim 28 recites. Following the Examiner's line of reasoning, balsa wood would be impact resistant. However, it would not provide a bowling surface, if for no other reason than upon impact by a bowling ball, the balsa wood would not provide a bowling surface. It would also not be a laminate layer. Claim 28 recites a bowling lane surface that includes a laminate layer.

Additionally, the limitation to bowling lanes is significant. Any floor cannot fulfill that limitation, for example, the international patent classification recognizes bowling alleys (class A63D 1/00 including A63D 1/04) but miniature bowling alleys belong to a different class (A63D 3/00). So if even the miniature alleys are in different class the concept of the bowling lane (alley) is very specific. Thus, the Examiner's statement that the limitation is insignificant is incorrect.

Gorges also does not disclose an impact stress enduring board layer. Rather, Gorges discloses a face sheet 15 that is a fibrous material impregnated with phenolic resin so as to enhance the fire resistance characteristics of the panel. Gorges does not disclose that the face sheet is an impact stress enduring layer or a board layer. The Examiner asserts that the passage at col. 6, line 18 discloses a board layer that includes a wood-based board recited in claim 17. However, this passage of Gorges is describing the composition of the cellular core layer 11, not the face sheet. Therefore, Gorges does not disclose the impact stress enduring board layer recited in claims 26 or 28.

In view of the above, Gorges does not disclose all elements of the present invention recited in claim 26 or 28 or claims dependent thereon. Since Gorges does not disclose all elements of the present invention recited in claim 26 or 28 or claims dependent thereon, the present invention, as recited in claim 26 and 28 and claims dependent thereon, is not properly rejected under 35 U.S.C. § 102(b). For an anticipation rejection under 35 U.S.C. § 102(b) no difference may exist between the claimed invention and the reference disclosure. *See Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q. 841 (C.A.F.C. 1984).

Along these lines, anticipation requires the disclosure, in a cited reference, of each and every recitation, as set forth in the claims. See *Hodosh v. Block Drug Co.*, 229 U.S.P.Q. 182 (Fed. Cir. 1986); *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986).

The combination of Gorges and Kelly does not suggest the present invention as recited in claim 18 since, among other things, Gorges does not suggest a laminate layer. Rather, Gorges suggests a fire retardant coating 20 that includes a copolymer of vinylidene fluoride and hexafluoropropene. Gorges does not disclose that the coating is a laminate. As discussed above, Gorges does not suggest a laminate, as the term laminate is commonly defined. Furthermore, Gorges does not suggest a bowling surface that is a laminate or a laminate that is impact resistant.

Claim 28, which claim 18 depends from, recites that the laminate layer is a bowling surface and is impact resistant. Any surface that a bowling ball is rolled on is not a bowling lane. Since Gorges suggests a fire retardant coating and not a laminate, there would be no motivation to combine Gorges and Kelly and replace the coating with a laminate. Therefore, the combination of the structures suggested by Gorges and Kelly does not suggest the present invention as recited in claim 18.

The combination of Brunst and Kelly does not suggest the present invention as recited in

claims 17-22 and 26-28 since, among other things, the combination of Brunst and Kelly does not suggest a sectional bowling lane or a construction element for a bowling lane that includes at least one supporting structure layer that includes a cellular board that includes a plurality of cells that have a longitudinal axis that extends perpendicular to the cellular board layer. The natural plant cells that form wood are randomly oriented. Therefore, the "cellular board" the Examiner asserts that Brunst suggests does not suggest the a bowling lane that includes at least one supporting structure layer that includes a cellular board that includes a plurality of cells that have a longitudinal axis that extends perpendicular to the cellular board layer.

The combination of Brunst and Kelly also does not suggest the present invention since the combination does not suggest a construction element for a bowling lane that includes a board layer. Along these lines, Brunst discloses that "laminate members" 31 and 32, which form a part of the subject panel member 10, typically comprise a thermosetting resin impregnated core overlaid with a protective thermosetting resin impregnated paper overlay or a thermosetting resin overlay coating. In addition, laminate 31, which is adhered to the top face 22 of core 20, includes a decorative layer or print sheet disposed between the resin impregnated core and the protective overlay. The print sheet includes customary bowling lane indicia, such as wood grain, marker darts, etc. Contrary to the Examiner's assertion, if they resemble any layer of the present invention, the laminate members 31 and 32 suggested by Brunst resemble the impact-resistant laminate layer.

Along these lines, Applicants direct the Examiner's attention to page 4, line 29, of the WO 00/37151 (the present application), which states, "The laminate 1 is made of multilayer

paper impregnated with resin." Similarly, Kelly also suggests a laminate that includes glass cloth or crepe paper layers impregnated with a thermosetting resin. Thus, Kelly discloses a layer which resembles laminate member 31 of Brunst. Therefore, the combination of Brunst and Kelly does not suggest the structure of the present invention.

The combination of Brunst, Kelly, Stirling, Materials Science and Engineering and Turner does not suggest the present invention as recited in claims 12-14 since, among other things, it would not be obvious to replace the plant cells in the structure suggested by Brunst with honeycomb cells, particularly since natural plant cells, which the Examiner has equated with the cells in the cellular layer of the present invention, have varying sizes, shapes, orientations, among other characteristics. Stirling simply suggests screwing a resurfacing layer on the top surface of an existing bowling lane to refinish the bowling lane. Such does not suggest the multilayer construction of the present invention and is contrary to the present invention, which suggests a bowling lane that includes a plurality of sections that can be flipped or replaced individually in refurbishing a lane.

On the other hand, Turner suggests an aircraft floor structure. Such a structure does not undergo the stresses that a bowling lane undergo and does not need to maintain the tolerances of the bowling lane surface. There are no board layers or laminate layers attached to the honeycomb, only another honeycomb structure and skin. The skin layer is a part of the honeycomb, not a layer attached to the honeycomb structure. Therefore, the skin is not another layer attached to the honeycomb, but rather is a part of the honeycomb. Turner does not suggest a structure that can withstand repeated impacts. Along these lines, col. 1, lines 62-66, state that

the second honeycomb is "not, by itself, able to withstand the impact or bending stresses which can be supported by the laminated structure."

In view of the above, the combination of Brunst, Kelly, Stirling, Materials Science and Engineering and Turner does not suggest the present invention as recited in claims 12-14. Furthermore, there is no suggestion or motivation in any of Brunst, Kelly, Stirling, Materials Science and Engineering and Turner to combine them as suggested by the Examiner.

The combination of Brunst, Kelly, Stirling, Materials Science and Engineering and Gorges does not suggest the present invention as recited in claims 15 and 16 since, among other things, it would not be obvious to replace the natural plant cells of the structure suggested by Brunst with honeycomb cells of a honeycomb cell structure. Honeycomb cells have similar sizes, shapes and orientations, whereas natural plant cells do not. Therefore, the combination of Brunst, Kelly, Stirling, Materials Science and Engineering and Gorges does not suggest the present invention as recited in claims 15 and 16.

The present invention is not claiming mere impact resistance. Rather, the present invention, as recited in the claims is limited to a bowling alley element. As such, the present invention is functional as a bowling lane and, as a result, must be able to endure repeated impacts of bowling balls and retain its characteristics as a bowling lane. Due to its unique construction, the present invention can greatly reduce the weight of a bowling lane as compared to known bowling lane constructions. Also, the present invention makes it possible to erect a lane for temporary use. The present invention also provides a very stable bowling lane construction. The

invention represents a completely new way of thinking in the field of bowling lanes that none of the cited references disclose or suggest.

At the time the present invention was made, no commercially available modular panel was suitable for a bowling lane. Seizing upon a new way of thinking, the Applicants developed a new construction element from materials known to have poor impact resistance. This way of thinking and the resulting structure are contrary to the prior art.

The present invention also provides a lightweight element, weighing just 100 kg as compared to 195 kg for known structures, as described at page 6, lines 1-10 of the specification. As a result, the laminate and board layers of the present invention need to be considerably thinner in the present invention, which is contrary to the knowledge of those skilled in the art. One of ordinary skill in the art would know that two board layers that are positioned loosely on top of each other and have a laminate layer on the surface of the uppermost board are sufficient for attaining a reasonable lane construction, but that repairing is required from time to time. Addition of a cellular layer, which has poor impact resistance and at the same time making the board layers and laminate layer thinner and joining all of those layers together to prevent resurfacing is illogical based on the prior art.

However, unexpectedly, the present invention has proved to maintain its straightness. Also, the present invention has proven to be highly resistant to dents because the board layer, which is attached to the supporting structure layer, spreads the impact force into the plane of the board layers. Furthermore, the present invention makes it possible to optimize the impact

resistance, the thickness of the various layers and the weight of the construction element in different sections of a bowling lane.

Everything, even compositions of matter are made of combinations of elements. It is the combination that the invention lies. The looking at elements in isolation does not make the combination or application of the combination obvious. The present invention is not merely a combination of boards and honeycomb panel. The present invention is a lightweight, sectional bowling alley element. When compared to the prior art of bowling alley construction, the present invention represents a vast improvement.

In view of the above, the references relied upon in the Office Action, whether considered alone or in combination, do not disclose or suggest patentable features of the present invention. Therefore, the references relied upon in the Office Action, whether considered alone or in combination, do not anticipate the present invention or make the present invention obvious. Accordingly, Applicants respectfully request withdrawal of the rejection based on the cited references.

In conclusion, Applicants respectfully request favorable reconsideration of this case and early issuance of the Notice of Allowance.

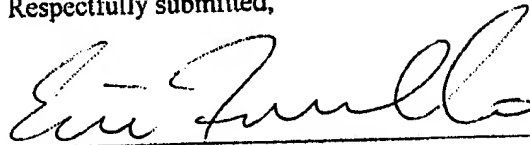
If an interview would advance the prosecution of this application, Applicants respectfully urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account 22-0261.

Respectfully submitted,

Date:

11/4/05

A handwritten signature in cursive script, appearing to read "Eric Franklin", written over a horizontal line.

Eric J. Franklin, Reg. No. 37,134
Attorney for Applicants
Venable LLP
575 7th Street, NW
Washington, DC 20004
Telephone: 202-344-4936